

REMARKS

Status of the claims

Claims 36-40 are pending in the application. Claims 36-40 are rejected. Claims 36 and 40 are currently amended. No new matter is added herein.

Claim Amendment

Claim 36 is amended herein to overcome the 35 U.S.C. §112, second paragraph rejection and claim objection. Amended claim 36 is drawn to a method of screening for a compound that inhibits virus binding and entry to a target cell mediated by a wild type viral envelope protein. Such a method comprises creating an envelope-enzyme fusion protein by attaching an enzyme to the C-terminal end of a viral envelope protein. Virus particles comprising the fusion protein and the wild type viral envelope protein are generated such that the envelope-enzyme fusion protein is encapsulated into the virus particles. Target cells are then infected with the virus particles in the presence or absence of the compound and the activities of the enzyme in the infected cells are measured. Decreased enzyme activities in the presence of the compound indicates that the compound inhibits virus binding and entry to the target cells mediated by the wild type viral envelope protein. This amendment to claim 36 is supported by the description on pg. 11, lines 3-23 and pg. 12, lines 9-20 of the instant specification. Additionally, claim 40 is amended to overcome the claim

objection. Accordingly, amended claim 40 limits the measurement of enzyme activities in “a” 96 well-plate.

Claim objections

Claim 36-40 stand objected to as the Examiner objects to the grammar of the claims. Applicants respectfully traverse these objections.

The Examiner states that the preamble of claim 36 recites improper grammar and suggests amending the language in the preamble. Additionally, the Examiner also states that grammar in claim 40 is improper.

Claims 36 and 40 are amended as suggested by the Examiner and as discussed supra. Accordingly, based on these amendments, Applicants respectfully request the withdrawal of objections to claims 36 and 40.

35 U.S.C. §112 rejection

Claims 36-40 are rejected under 35 U.S.C. §112, second paragraph for being indefinite. Applicant respectfully traverses this rejection.

The Examiner states that the claims recite terms that require clarification in order to determine the metes and bounds of the claimed method. Specifically, the Examiner states that the multiple references to viruses is confusing without further definition. For instance, the preamble in claim 36 refers to a compound that inhibits virus binding and entry into a target cell. In the next phrase of claim 36, the claim recites “ a viral envelope protein”. The Examiner states that it is not clear if the viral envelope protein is from the same virus that

the compound inhibits. Although in the next phrase of claim 36, there is a mention of "a wild type viral envelope protein", it is not clear to the Examiner if the wild type viral envelope protein is from the same virus that the compound inhibits or is from the same virus as the viral envelope protein attached to the enzyme.

Claim 36 is amended as discussed supra. The instant invention discloses incorporating a reporter enzyme protein into the virus itself. In order to do so, the luciferase enzyme is attached to the C-terminal end of a virus such as murine leukemia virus. Viruses are then assembled by transfection of cells with wild type envelope protein, the envelope-luciferase construct and plasmids encoding virus structural proteins (pg. 11, lines 3-23). The instant invention also discloses the names of the viruses that can be pseudotyped onto MLV particles, which comprise natural agents of infectious disease and potential bioterrorist agents. The instant invention teaches that such pseudotyped viruses would enable screening for novel compounds that inhibit entry of these infectious and potentially harmful viruses (pg. 12, lines 9-20). Hence, the envelope-enzyme fusion protein is constructed to incorporate the reported enzyme into wild type virus whose entry has to be inhibited. Since claim 36 is amended to reflect these teachings of the instant invention, claim 36 and its dependent claims are not indefinite. Accordingly, based on these amendments and remarks, Applicant respectively requests the withdrawal of the rejection of claims 36-40 under 35 U.S.C. §112, second paragraph.

This is intended to be a complete response to the Office Action mailed March 13, 2007. Applicants enclose a Petition for Extension of time and Form PTO-2038 along with the response. If any issues remain outstanding, please telephone the undersigned attorney of record for immediate resolution.

Respectfully submitted,

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